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SPIDERS OF THE RHOICININAE (PISAURIDAE) FROM WESTERN PERU AND ECUADOR

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A small suite of spiders, collected in river valleys of coastal Ecuador and Peru, consists of one specimen of a new species of *Rhoicinus* Simon and several of the closely related new genus *Rhoicinaria* Exline. This material is the first to be recorded since Simon's proposal of the genus in 1898, and furnishes new data on the subfamily *Rhoicininae*.

The spiders of the Rhoicininae present a problem in family relationships. Their habits so far as known, as well as some morphological characters, relate them to the Lycosidae, where Simon placed them (1898, p. 129; 1898a, pp. 320-322). They build no webs, are ambulatory, and the female attaches her egg cocoon to the posterior spinnerets, appearing in life much like the lycosid *Pirata*. The eye arrangement, chelicerae, and pattern of the abdomen, however, relate the group to the Agelenidae, where Petrunkevitch (1928, pp. 9, 38; 1939, p. 166) included it. The group is little known, and no males have previously been described.

The morphological characters of the Rhoicininae are intermediate between those of the Agelenidae and Lycosidae. The group possesses characters, however, that exclude it from either family: It does not agree with the Lycosidae in (1) the possession of a colulus, (2) the integument covered with plumose hairs, (3) the eyes definitely arranged in two rows, (4) the lack of a tarsal scopula, (5) the possession of many teeth (9 to 20) on the upper claws, and (6) the divided anal tubercle. It differs from the

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Agalenidae in (1) the notched trochanters, (2) the trichobothria arranged in irregular double rows on the tibiae, metatarsi, and tarsi, (3) the lower claw with one or no teeth, (4) the divided anal tubercle, (5) the basal excavations of the labium, and (6) the attachment of the egg sac to the posterior spinnerets.

None of these characters is incompatible with those of the family Pisauridae. The Pisauridae, moreover, are intermediate in taxonomic position between the Lycosidae and Agalenidae. Several pisaurid genera have characters and/or habits in common with one or the other of these families. Consequently, the Rhoicininae are here placed in the family Pisauridae.

DISPOSITION OF TYPES: The holotypes and an allotype will be deposited at the American Museum of Natural History. A female paratype of *Rhoicinaria rorerae* will be given to each of the following institutions: the Museum of Comparative Zoölogy, Cambridge, Massachusetts; the British Museum (Natural History), London, England; the United States National Museum, Washington, D. C.; and the California Academy of Sciences, San Francisco, California.

ACKNOWLEDGMENTS: Miss Elizabeth B. Bryant, Museum of Comparative Zoölogy, Cambridge, Massachusetts, has very kindly supplied Simon's original description and checked the availability of the generic name *Rhoicinaria*. I am indebted to Messrs. Robin Walls and E. L. Moore, formerly of the Anglo-Ecuadorian Oilfields, Limited, Ancon, Ecuador, for the unique specimen of *Rhoicinus wallsi*.

FAMILY PISAURIDAE

SUBFAMILY RHOICININAE PETRUNKEVITCH (EMEND.)

Rhoicinae SIMON, 1898, *Histoire naturelle des araignées*, ed. 2, vol. 2, pp. 320-322, figs. 328-330 (a "group" within the Lycosidae).

Rhoicinae PETRUNKEVITCH, 1928, *Trans. Connecticut Acad. Arts Sci.*, vol. 29, pp. 9, 38; 1939, *ibid.*, vol. 33, p. 166; (error for Rhoicininae; a subfamily of the Agalenidae).

DIAGNOSIS: Eyes in two nearly parallel rows, posterior row somewhat recurved; eyes of approximately equal size, or anterior median eyes a little smaller than others; upper claws bearing many teeth, lower claw one or none; integument covered with plumose hairs; no onychium or scopula on legs; three teeth on lower margin of fang furrow. Female attaches egg cocoon to posterior spinnerets.

COMPARISONS: The subfamily, as defined, most nearly agrees with the Thaumasiinae Petrunkevitch ("group" Dolomedae Simon). It can be separated from that subfamily only by a combination of characters: (1) absence of scopulae, (2) eyes almost equal in size, and in nearly parallel rows, (3) three teeth on lower margins of fang groove, (4) inflexible tarsi, (5) single or no tooth on third claw, (6) lack of marked secondary sexual dimorphism, and (7) rather flat carapace, with cephalic part having almost parallel sides.

GENUS *RHOICINUS* SIMON, 1898

Rhoicinus SIMON, 1898, Bull. Soc. Ent. France, no. 5, p. 129; 1898, Histoire naturelle des araignées, ed. 2, vol. 2, p. 322. PETRUNKEVITCH, 1928, Trans. Connecticut Acad. Arts Sci., vol. 29, p. 96.

GENOTYPE: *Rhoicinus gaujoni* Simon (1898, p. 129), by subsequent designation (Simon, 1898a, p. 322).

DIAGNOSIS: Cephalothorax oval, rather low, cephalic part with almost parallel sides, nearly straight in front; eyes almost equal in size, forming two nearly parallel rows; anterior row slightly recurved, eyes close together; posterior row wider, very slightly recurved; clypeus higher than diameter of anterior eyes; chelicerae with three teeth on lower margin of fang groove; labium longer than wide, more than half as long as maxillae; legs long, with many spines, without scopulae but with many long, bristle-like hairs; upper claws with many teeth (12-14), lower claw with one or none; upper spinnerets a little longer and more slender than anterior spinnerets, with apical segment shorter than basal.

REMARKS: Simon described two species of *Rhoicinus*. *R. gaujoni* is known only from the province of Zamora, Ecuador, in the southeastern part of the country and in the trans-Andean area recently ceded to Peru. *R. wapieri* is recorded only from Colonia Tovar, Venezuela. The discovery of *R. wallsi* adds coastal Ecuador to the range of the genus and confirms its taxonomic unity.

Rhoicinus wallsi, new species

Figures 6-8

FEMALE: Total length, 7.83 mm.; length without chelicerae or spinnerets, 6.75 mm.; length of carapace, 3.15 mm.; width of

carapace, 2.34 mm.; width at level of posterior eye row, 1.62 mm.; maximum height of carapace, 1.05 mm.

Carapace reddish brown, narrowly outlined in black, with longitudinal thoracic groove and narrow radiating markings dark brown. Sides of carapace heavily pigmented with dark gray, leaving lighter patches near lateral margins, and a wide median longitudinal band heavily covered with inconspicuous, short, white hairs, and a few long, black, bristle-like hairs. Chelicerae dark reddish brown, covered with long bristles. A stout bristle between anterior median eyes, and a row of bristles directed medially on lower margin of clypeus. Legs and palps orange yellow, a little darker towards tip, annulate with gray, darker on under side of legs. Mouth parts and sternum yellow, suffused with indistinct gray markings. Sternum with long, perpendicular, gray bristles. Abdomen dark gray, with light yellowish basal marking; covered with bristles, dark hairs, and slender white plumose hairs that lie prone. Venter yellowish gray; genital area reddish; spinnerets yellow.

Chelicerae well developed, 1.62 mm. long, protruding somewhat in front of carapace, slightly geniculate; boss conspicuous; fang evenly rounded, of moderate length; fang groove with three well-developed teeth on each margin, upper margin scopulate. Carapace almost evenly rounded from cephalic grooves to posterior margin; cephalic region separated from thoracic by shallow cephalic grooves, not joining thoracic groove; cephalic region with sides almost parallel, quite blunt in front; clypeus vertical, 0.26 mm. high, one and a half times as high as diameter of anterior median eyes. Anterior eye row somewhat recurved in front view; posterior eye row slightly recurved in dorsal view; eyes almost equal in size, all appear dark; lateral eyes, especially posterior lateral, on low tubercles and facing laterally. Diameter of eyes: A.M.E., 0.17 mm.; A.L.E., 0.17 mm.; P.M.E., 0.17 mm.; P.L.E., 0.16 mm. Distance between eyes: A.M.E., 0.08 mm.; A.M.E. to P.M.E., 0.13 mm.; P.M.E., 0.12 mm.; A.M.E. to A.L.E., 0.03 mm.; P.M.E. to P.L.E., 0.20 mm.; A.L.E. to P.L.E., 0.15 mm. Quadrangle of median eyes a little narrower in front than behind, slightly longer than broad.

Maxillae scopulate on distal inner margins, 0.22 mm. long, normal in shape. Labium rather flat, over half length of maxillae, 0.14 mm. long and 0.12 mm. wide, a little longer than broad; basal excavations not exceeding half length of labium. Sternum

heart shaped, longer than wide, produced between hind coxae, which nevertheless are quite close together.

Lorum of pedicel somewhat similar to that of *Dolomedes*, although not so deeply notched.

Legs long and slender, 4123, without much disparity in length, without scopulae, spinose and covered with several kinds of hairs; trichobothria numerous on tarsi, in at least two irregular rows (so generally broken from tibiae and metatarsi of holotype that pattern is difficult to determine). Trochanters deeply notched. Three claws; upper two pectinate in a single row of 12 to 13 long, closely set teeth; distal seven or eight teeth about the same length, basal few shorter. Lower claw fairly large, curved, with long, slender, curved tooth. Measurements of legs in millimeters:

	FEMUR	PATELLA-TIBIA	METATARSUS	TARSUS	TOTAL
Palp	1.26	0.62 0.81	—	1.53	4.22
1	3.24	4.05	2.88	1.62	11.79
2	3.26	4.05	2.88	1.53	11.72
3	2.70	3.24	2.43	1.26	9.63
4	3.42	4.01	3.51	1.71	12.65

SPINATION OF LEGS

LEG 1: Femur: dorsal, 6 (weak, irregularly placed); prolateral, 2 distal. Patella: dorsal, 1; prolateral, 1; retrolateral, 1; (all weak). Tibia: dorsal, 2; prolateral, 2; ventral, 3 pairs (distals weak); retrolateral 2 (weak). Metatarsus: prolateral, 1-1 pair; ventral, 3 pairs; retrolateral, 2.

LEG 2: Femur: dorsal, 3 (weak); prolateral, 3 (weak); retrolateral, 3 (weak). Patella: none certain. Tibia: prolateral, 2; ventral, 2 pairs-1; retrolateral, 2. Metatarsus: dorsal, 1 distal; prolateral, 3; ventral, 3 pairs; retrolateral, 2; (whorl of 4-5 spines near distal end).

LEG 3: Femur: dorsal, 3 (weak); prolateral, 4 (weak); retrolateral, 2 (weak). Patella: prolateral, 1; retrolateral, 1. Tibia: dorsal, 1 (weak); prolateral, 2; ventral, 2 pairs; retrolateral, 2. Metatarsus: dorsal, 1 pair distal; prolateral, 3; ventral, 2 pairs-1; retrolateral, 3; (whorl of 5 near distal end).

LEG 4: Femur: dorsal, 3; prolateral, 3 (very weak); retrolateral, 1 (weak). Patella: dorsal, 1; prolateral, 2; retrolateral, 1 (weak). Tibia: dorsal, 2; prolateral, 2; ventral, 3 (weak); retrolateral, 2. Metatarsus: dorsal, 1 pair distal; prolateral, 4; ventral, 2 pairs staggered, 1 distal; retrolateral, 3; (whorl of 5 at distal end). (Some spines are missing on holotype, and spine scars are not well enough differentiated from long hair scars to allow an accurate count.)

Abdomen oval, narrow, deep; anal tubercle two segmented. Spiracular groove near spinnerets. Colulus short and broad. Anterior spinnerets a little shorter and thicker than posterior pair, with short conical terminal segment; median pair long; posterior

pair longest with terminal segment nearly as long as basal segment, with many spinning tubes on inner side. Genital area covered with reddish chitin, differentiated but not sclerotized; conspicuously covered with very long, soft, white hairs; genital plate protruding posteriorly over genital groove; no atrium or external openings visible. In posterior half of genital plate a pair of heavy, longitudinal, brown, and somewhat raised parts visible through external chitin; slightly converging posteriorly; probably consisting of short, thick connecting canals posteriorly, and small spermathecae anteriorly (see fig. 8).

LOCALITY: Ecuador, Province of El Oro: along the Colorado River, November 4, 1942, E. L. Moore and R. Walls (holotype female).

COMPARISONS: *Rhoicinus wallsi* is quite similar to *R. gaujoni* Simon, described from Zamora in the southeastern part of Ecuador. It differs from Simon's species, as described, in several characters: The proportions of the legs are different, the fourth being the longest in *wallsi*, whereas the first and fourth are equal (or the first slightly longer) in *gaujoni*. The clypeus is not so high in *wallsi* as in *gaujoni*, in which the height of the clypeus is nearly as great as the width of the eye area. The species occur in distinct areas, separated by the Andes Mountains, and at considerably different elevations, *wallsi* having been collected near sea level.

The species agrees quite well with the descriptions of *R. wapieri* Simon. It differs, however, in having a lower clypeus. The female genital plate is conspicuous, whereas Simon described that of *wapieri* as not at all prominent. Because of the extremely brief description of *R. wapieri*, as well as the distance separating the known occurrences of the species, *R. wallsi* is provisionally regarded as specifically distinct.

RHOICINARIA, NEW GENUS

GENOTYPE: *Rhoicinaria rorerae*, new species.

DIAGNOSIS: Similar to *Rhoicinus* Simon. Carapace about one-third longer than wide; height of clypeus no greater than diameter of anterior eyes; anterior median eyes a little smaller than other eyes; posterior eye row wide and considerably recurved; labium wider than long; leg 4 about three times length of carapace, longer than other legs; palp long, with narrow and shallow cymbium; tibia with short spur on outer side; embolus short and

terminal, on outer side of bulb; spermathecae of female very large, with openings into connecting canal on posterior margin of genital plate.

COMPARISONS: *Rhoicinaria* differs from *Rhoicinus* in being smaller, with shorter legs; carapace wider in proportion to length; clypeus lower; anterior median eyes smaller; posterior eye row more recurved; labium wider than long; female spermathecae larger.

***Rhoicinaria rorerae*, new species**

Figures 1-5, 9-14

MALE: Total length, 3.06 mm.; length of carapace, 1.53 mm.; width of carapace, 1.04 mm.; height of carapace, 0.62 mm.

Carapace darker than that of female allotype, but not darker than in some other females; light reddish brown, with indefinite gray markings. Chelicerae dark reddish brown, mouth parts and sternum reddish yellow. Legs with femora and patellae lighter than cephalothorax, distal segments about same color as cephalothorax, very indefinitely annulated. Abdomen dark gray, with fairly definite yellowish markings; median basal marking not so definite as in female, succeeded by five pairs of median yellowish spots that coalesce into chevrons posteriorly; a few yellowish streaks on sides; venter and spinnerets yellowish. Abdomen covered with ordinary hairs and prone plumose hairs.

Cephalothorax as in female, except that cephalic part is not so distinctly set off, and chelicerae protrude only slightly in front of carapace and are scarcely if at all geniculate; clypeus vertical, 0.04 mm. high. Anterior row of eyes straight; posterior row moderately recurved and longer than anterior row; eyes appear light in color except anterior median eyes, which appear dark and are smaller than others; anterior median eyes farther from each other than from anterior laterals; posterior median eyes almost a diameter apart, not so far from posterior lateral eyes; median ocular area wider behind than long. Diameter of eyes: A.M.E., 0.06 mm.; A.L.E., 0.09 mm.; P.M.E., 0.08 mm.; P.L.E., 0.08 mm. Distance between A.M.E., 0.03 mm.; P.M.E., 0.07 mm.; A.M.E. to P.M.E., 0.04 mm.; A.M.E. to A.L.E., 0.01 mm.; P.M.E. to P.L.E., 0.05 mm. Mouth parts and sternum as in female; labium wider than long. Sternum heart shaped, 0.72 mm. long and 0.62 mm. wide.

Legs fairly long, spinose, with many long coarse hairs, short hairs, and plumose hairs; ventral side of femora clothed with an irregular double row of spine-like hairs, perpendicular to segment; three claws, upper two similar, pectinate with a single row of nine or 10 teeth on basal two-thirds, longer towards tip; third claw fairly long, geniculate, with one tooth or none; lacking scopulae, claw tufts, serrated bristles, and accessory claws, but with many long, spine-like hairs; trichobothria in two irregular rows on tibiae, metatarsi, and tarsi, longer towards tip of segments; no tarsal organ; without onychium. Trochanters notched, but not so noticeably as in female. No great disparity in length of legs, 4123. Measurements of legs in millimeters:

	FEMUR	PATELLA-TIBIA	METATARSUS	TARSUS	TOTAL
Palp	0.60	0.24 0.26	—	0.56	1.66
1	1.17	1.35	0.98	0.63	4.13
2	1.08	1.22	0.90	0.58	3.78
3	1.03	1.22	0.90	0.54	3.69
4	1.22	1.62	1.22	0.63	4.69

SPINATION OF LEGS

LEG 1: Femur: dorsal, 2; prolateral, 2. Patella: 1 distal, dorsal (?). Tibia: prolateral, 2; ventral, 3 pairs. Metatarsus: dorsal, 1 pair distal; prolateral, 1; ventral, 3 pairs (distal spines quite lateral).

LEG 2: Femur: dorsal, 2. Patella: dorsal, 1 distal (?). Tibia: prolateral, 2, ventral, 3. Metatarsus: dorsal, 1 distal; prolateral, 2; ventral, 2 pairs and 1 distal; retrolateral, 2.

LEG 3: Femur: dorsal, 2; prolateral, 1 distal (small); retrolateral, 1. Patella: dorsal, 1. Tibia: dorsal, 2; prolateral, 2; ventral, 1-1 pair; retrolateral, 2. Metatarsus: prolateral, 1-1-2; ventral, 2 pairs, 1; retrolateral, 1-2.

LEG 4: Femur: dorsal, 2 (?); retrolateral, 1 distal. Patella: dorsal, 1 distal (?). Tibia: dorsal, 2; prolateral, 2; ventral, 2; retrolateral, 2. Metatarsus: dorsal, 1 basal (weak); prolateral, 1-1-2; ventral, 1-1; retrolateral, 1-1-2. (Spines arranged in whorls of five near distal ends of metatarsi.)

Palp long; tibia slightly longer than patella; tibia bearing small blunt spur on distal retrolateral side; spur with a shallow, crescent-shaped, darkly chitinized excavation at ventral side of base; cymbium long, shallow, with thick bulb greatly protruding ventrally; visible part of bulb mostly tegulum, with one complete whorl of wide seminal duct visible through chitin; seminal receptacle in subtegulum, visible only between prolateral margin of cymbium and tegulum; embolus short, almost straight, on retrolateral terminal side of bulb, accompanied by very slightly

chitinized conductor arising from tegulum; a short, hooked, median apophysis present, arising from tegulum on prolateral terminal end; a heavily chitinized, inarticulated ridge visible between median apophysis and embolus, in center of terminal end of tegulum.

Abdomen like that of female, but lacking tufts of hairs at sides below genital furrow. Spiracular opening near spinnerets. Spinnerets and anal tubercle as in female.

FEMALE: Total length, 4.01 mm.; length, not including chelicerae or spinnerets, 3.96 mm.; length of carapace, 1.44 mm.; width of carapace, 1.17 mm.; width of cephalic part at posterior eye level, 0.68 mm.; height of carapace, 0.54 mm.

Carapace and chelicerae orange yellow, becoming a little paler posteriorly, with a few irregular gray markings on head and sides; margin of carapace narrowly outlined in black. Legs yellow, with faint gray annulations, becoming darker towards tip. Abdomen yellowish gray, with a few irregular gray markings, clothed with ordinary hairs and plumose hairs.

Carapace with sides rounded; cephalic region separated by shallow cephalic grooves, sides almost parallel; highest in front of thoracic groove; thoracic groove well marked, longitudinal.

Chelicerae robust, somewhat geniculate, with a well-developed boss at base, directed anteriorly and ventrally, somewhat divergent at tip, 0.72 mm. long; fang of moderate length; furrow of fang with three teeth on each margin, upper margin lightly scopulate. Clypeus vertical, 0.06 mm. high. Eyes in two rows, both recurved in dorsal view, rows almost straight in front view; eyes appear light, except anterior medians. Dimensions of eyes: A.M.E., 0.05 mm.; A.L.E., 0.09 mm.; P.M.E., 0.09 mm.; P.L.E., 0.08 mm. Distance between A.M.E., 0.05 mm.; A.L.E. to A.M.E., 0.02 mm.; A.M.E. to P.M.E., 0.04 mm.; P.M.E., 0.09 mm.; P.M.E. to P.L.E., 0.08 mm.; A.L.E. to P.L.E., 0.06 mm. Maxillae of moderate size, wider at tip than at base, 0.45 mm. long, scopulate on inner margin and inner half of anterior margin; labium, 0.20 mm. high, 0.26 mm. wide, basal excavations extend almost half length. Sternum heart shaped, 0.80 mm. long, 0.72 mm. wide, extending well between hind coxae.

Pedicel with divided lorum, notched on posterior margin of anterior half, and lobed on anterior margin of posterior part.

Legs as in male, except that trochanters are very noticeably notched. Measurements in millimeters:

	FEMUR	PATELLA-TIBIA	METATARSUS	TARSUS	TOTAL
Palp	0.63	0.34 0.36	—	0.65	1.98
1	1.44	1.80	1.17	0.68	5.09
2	1.35	1.62	1.08	0.63	4.68
3	1.26	1.44	0.99	0.60	4.29
4	1.62	1.98	1.56	0.72	5.88

SPINATION OF LEGS

LEG 1: Femur: dorsal, 2; prolateral, 2 distal; retrolateral, 2. Patella: dorsal, 1 distal. Tibia: dorsal, 2 (weak); prolateral, 1 (weak); ventral, 3 pairs (strong), none distal. Metatarsus: ventral, 3 pairs (third pair lateral).

LEG 2: Femur: dorsal, 2; prolateral, 1 distal. Patella: dorsal, 1. Tibia: dorsal, 1 (weak); prolateral, 1; ventral, 3 pairs (those on prolateral margin very weak). Metatarsus: prolateral, 2; ventral, basal pair with prolateral weak, middle pair normal (distal pair considered prolateral and retrolateral); retrolateral, 1.

LEG 3: Femur: dorsal, 3; prolateral, 1. Patella: dorsal, 1 basal (weak), 1 distal. Tibia: dorsal, 2; prolateral, 2; ventral, 1 basal, 1 median pair; retrolateral, 1. Metatarsus: dorsal, 1 pair distal; prolateral, 2; ventral, 3 pairs; retrolateral, 2; (spines in whorl of 5 near distal end of segment).

LEG 4: Femur: dorsal, 3. Patella: dorsal, 1. Tibia: dorsal, 2; prolateral, 2; ventral, 1 basal, 1 pair median; retrolateral, 2. Metatarsus: prolateral, 1 basal, 1 median, 1 pair distal; ventral, basal pair staggered, median pair staggered, 1 distal; retrolateral, 1 basal, 1 median, 1 pair distal.

Palp quite long and robust, with pectinate claw.

Abdomen steeply rounded, longer than wide. Spiracle near spinnerets. Spinnerets six; first pair most robust, with a small conical second segment; posterior pair slender, but longer than anterior pair, with a conical second segment. Anal tubercle, seen from above, large and two-segmented, basal segment much wider than terminal.

Genital plate large, strongly arched; no atrium or openings visible from ventral surface; posterior edge heavily chitinized, extending posteriorly over genital groove, similar to genitalia in the lycosid *Pirata*. A pair of very large oval spermathecae show through the chitin, almost contiguous along medial line. Openings separated, situated beneath posterior edge of plate, each leading into a connecting canal and into large spermatheca. Fertilization ducts drain connecting canals almost at exterior openings, turning dorsally and anteriorly to vagina. (Internal details from cleared preparations; see figures.)

LOCALITIES: Ecuador, Province of Guayas: Hacienda San Miguel, Milagro, May 10, 1942 (holotype male, two female paratypes, one immature male).

Peru, Department of Piura: Sullana, November 12, 1939 (one male and two female paratypes), October 5, 1941 (allotype female, several female paratypes); Hacienda Mallares, along Chira River, January 4, 1941 (one female paratype), January 26, 1941 (three female paratypes); along Chira River (no locality or date) (two female paratypes).

All of these specimens were collected by H. E. and D. L. Frizzell.

ECOLOGY: *Rhoicinaria rorerae* is a tropical spider, restricted to a moist environment. It is known only in river valleys, and recorded occurrences are at elevations near sea level.

The species lives on the ground, in vegetable debris and the floor litter of open wooded areas. It inhabits banana groves at Milagro, Ecuador, and at Sullana, Peru. In the latter area, along the Chira River, it was collected most frequently in swampy, uncultivated terrain that received the overflow from an irrigation ditch.

Rhoicinaria rorerae apparently makes no web of any kind. It is ambulatory in habit. The female carries a lenticular egg sac attached to the posterior spinnerets. No egg sacs were preserved for study.

Mature specimens were collected in Peru in October, November, and January, and in Ecuador in May. Probably several generations develop during a year.

REMARKS: The species is named in honor of Mrs. James B. Rorer, Hacienda San Miguel, Milagro, Ecuador.

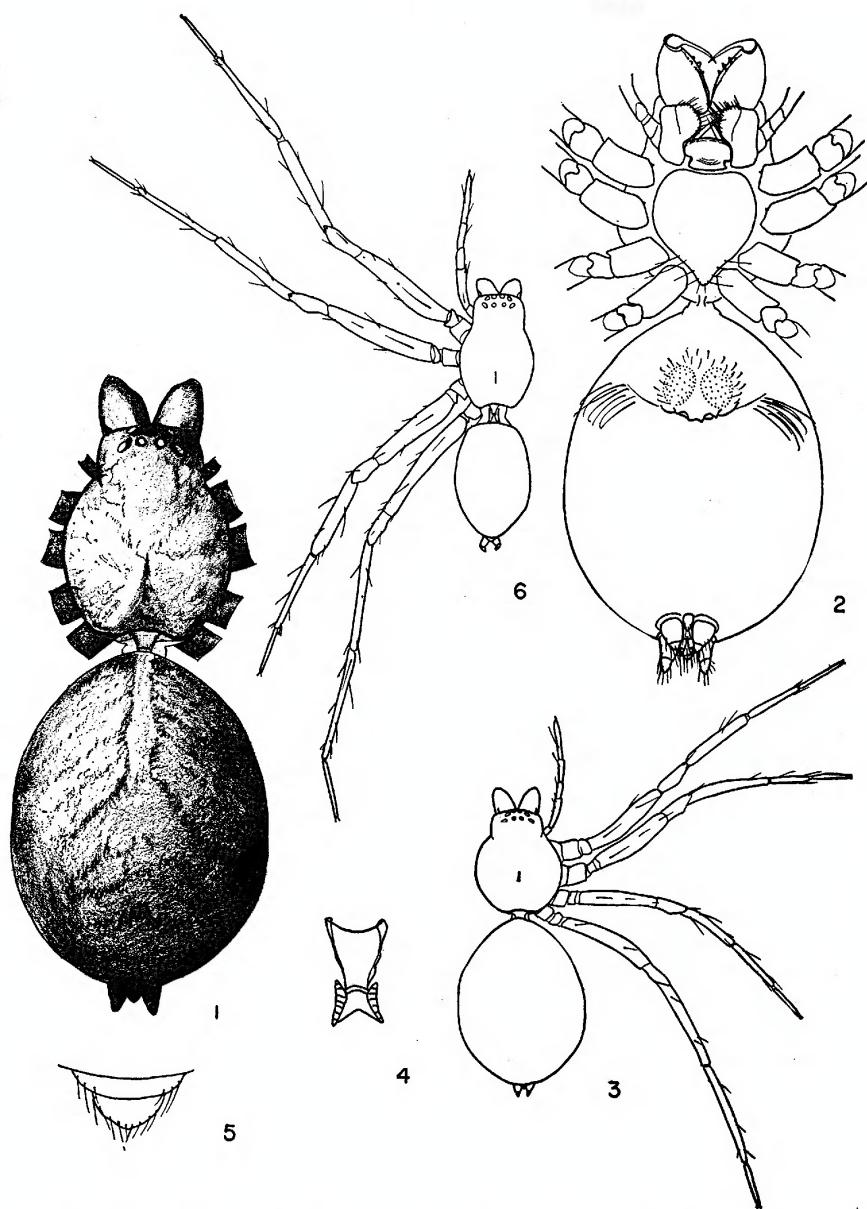
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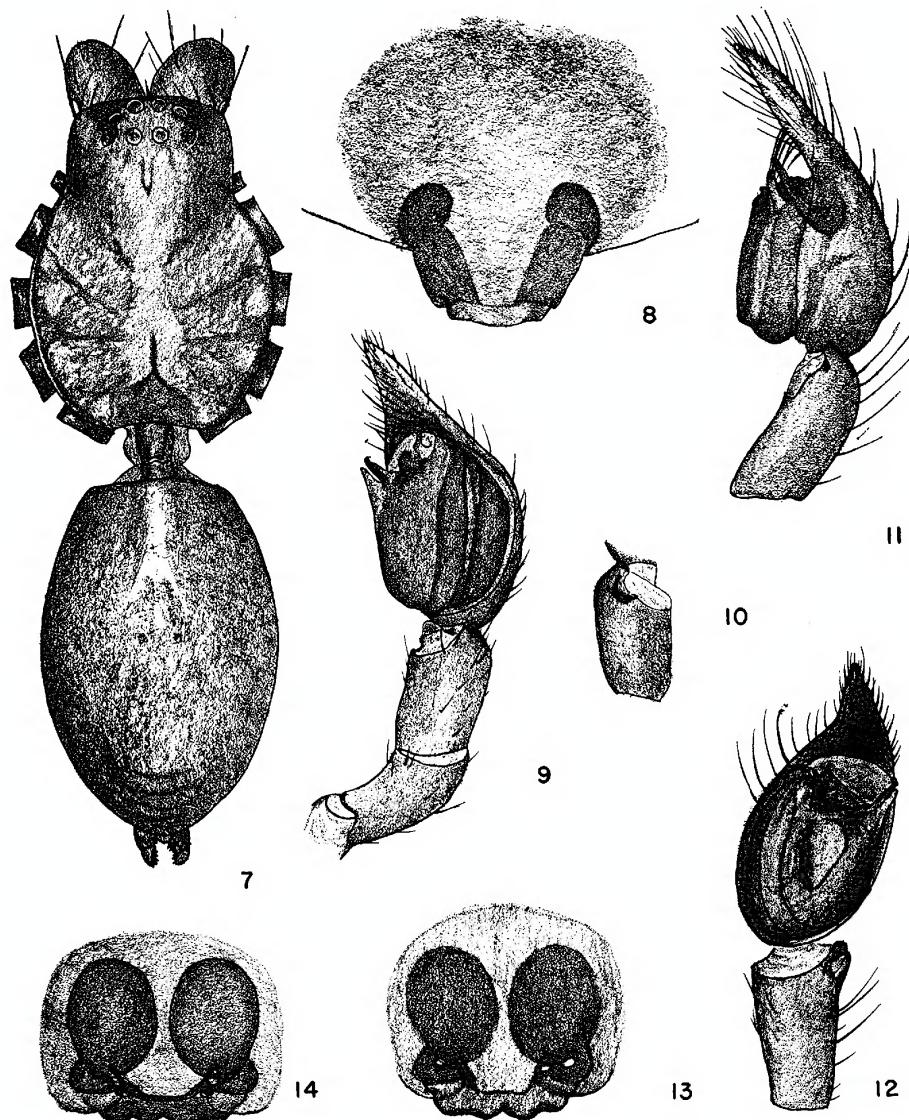
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Figs. 1-5. *Rhoicinaria rorerae*, new species, female allotype and paratype, Sullana, Department of Piura, Peru. 1, 3. Dorsal views, allotype. 2. Ventral view, allotype. 4. Lorum of pedicel, dorsal view, paratype. 5. Anal tubercle, dorsal view, paratype.

FIG. 6. *Rhoicinus wallsi*, new species, holotype, Colorado River, Province of El Oro, Ecuador, dorsal view.



Figs. 7, 8. *Rhoicinus wallsi*, new species, holotype. 7. Dorsal view. 8. Genital plate, ventral view.

Figs. 9-14. *Rhoicinaria rorerae*, new species. 9, 10. Male holotype, Milagro, Province of Guayas, Ecuador. 9. Right palp, prolateral view. 10. Tibia of right palp, retrolateral view. 11, 12. Paratype male, Sullana, Peru. 11. Left palp, retrolateral view. 12. Left palp, ventral view. 13, 14. Paratype female, Sullana, Peru, genital plate, cleared. 13. Dorsal view. 14. Ventral view.

